



INSTRUCTION MANUAL

UHF CB TRANSCEIVER IC-440

Icom Inc.



IMPORTANT

READ ALL INSTRUCTIONS carefully and completely before using the transceiver.

SAVE THIS INSTRUCTION MANUAL — This instruction manual contains important operating instructions for the **IC-440 UHF CB TRANSCEIVER**.

EXPLICIT DEFINITIONS

WORD	DEFINITION
 WARNING	Personal injury, fire hazard or electric shock may occur.
CAUTION	Equipment damage may occur.
NOTE	If disregarded, inconvenience only. No risk of personal injury, fire or electric shock.

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OPERATING NOTES

BUSY CHANNEL

Always listen to a channel (or observe the channel busy indicator on the display) to ensure that the channel is not already in use before transmitting.

CALLING CHANNELS (CB-11,CB-40)

In Australia channel 11 is the customary calling channel for establishing communication and channel 40 is the customary road vehicle channel.

EMERGENCY CHANNELS (CB-05, CB-R5, CB-35)

In Australia except in an emergency, a CB transmitter must not be operated on UHF emergency channels 5 & 35.

 **NOTE:** if the Radio is switched off while on an Emergency channel, the Radio when switched on again, will be on the (software preset channel) CB-11.

DATA CHANNELS (CB-22, CB-23)

No voice transmissions are permitted on data channels 22 and 23. (Note: Voice operation is inhibited on channels 22 and 23).

REPEATER CHANNELS (CB-R1 to CB-R8)

UHF CB repeaters provide greater range through a base station that re-transmits the signal. Repeaters operate utilizing two channels (repeater input/ repeater output channels). It is important to avoid operation on locally used repeater input channels (which will be in the range channels 31 to 38) or locally used repeater receiving channels (which will be in the range channels 1 to 8), unless long distance communication via the repeater facility is specifically required. (Please also see: Repeater Operation, Repeater Search Scan).

CLASS LICENCE

The citizen band radio service is licensed in Australia by The ACMA Radio-communications (Citizens Band Radio Stations) Class Licence and in New Zealand by MED General User Radio Licence for Citizens Band Radio and operation is subject to conditions contained in those licences.

PRECAUTIONS

 **WARNING! NEVER** connect the transceiver to an AC outlet. This may pose a fire hazard or result in an electric shock.

 **WARNING! NEVER** operate the transceiver while driving a vehicle. Safe driving requires your full attention—anything less may result in an accident.

NEVER connect the transceiver to a power source of more than 27.6 V DC. This will damage the transceiver.

NEVER connect the transceiver to a power source using reverse polarity. This will damage the transceiver.

NEVER cut the DC power cable between the DC plug and fuse holder. If an incorrect connection is made after cutting, the transceiver may be damaged.

NEVER expose the transceiver and microphone to rain, snow or any liquids. The transceiver and microphone may be damaged.

NEVER operate or touch the transceiver and microphone with wet hands. This may result in an electric shock or damage the transceiver and microphone.

NEVER place the transceiver where normal operation of the vehicle may be hindered or where it could cause bodily injury.

DO NOT push the PTT when not actually desiring to transmit.

DO NOT allow children to play with any radio equipment containing a transmitter.

DO NOT operate the transceiver for extended periods without running the vehicle's engine. The transceiver's power consumption may soon exhaust the vehicle's battery.

DO NOT use or place the transceiver in direct sunlight or in areas with temperatures below -10°C or above $+60^{\circ}\text{C}$.

DO NOT set the transceiver in a place without adequate ventilation. Heat dissipation may be affected, and the transceiver may be damaged.

DO NOT use the chemical agents such as benzine or alcohol when cleaning, as they can damage the transceiver's surfaces.

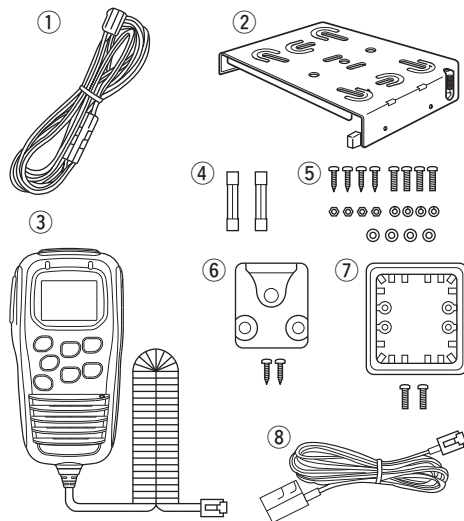
USE Icom microphones only (supplied or optional). Other manufacturer's microphones have different pin assignments and may damage the transceiver if attached.

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■ Supplied accessories

- ① DC power cable (3 m) 1
- ② Mounting bracket..... 1
- ③ Microphone (HM-182) 1
- ④ Fuses (FRG 5 A) 2
- ⑤ Mounting screws, nuts and washers 1 set
- ⑥ Microphone hanger set 1
- ⑦ Microphone hanger attachment plate 1
- ⑧ Microphone cable (2.5 m) 1



■ Installation

◆Location

Select a location which can support the weight of the transceiver and does not interfere with driving. We recommend the locations shown in the diagram at p. 2.

NEVER place the transceiver or microphone where normal operation of the vehicle may be hindered or where it could cause bodily injury.

NEVER place the transceiver or microphone where air bag deployment may be obstructed.

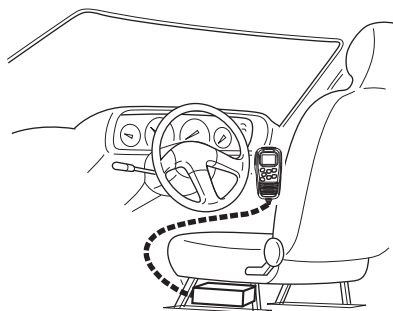
DO NOT place the transceiver or microphone where hot or cold air blows directly onto it.

DO NOT place the transceiver or microphone in direct sunlight.

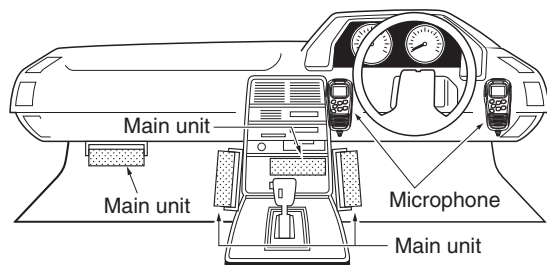
1 ACCESSORIES AND CONNECTION

◇ Installation methods

<Sample 1: IC-440 is installed under a driver's seat.>

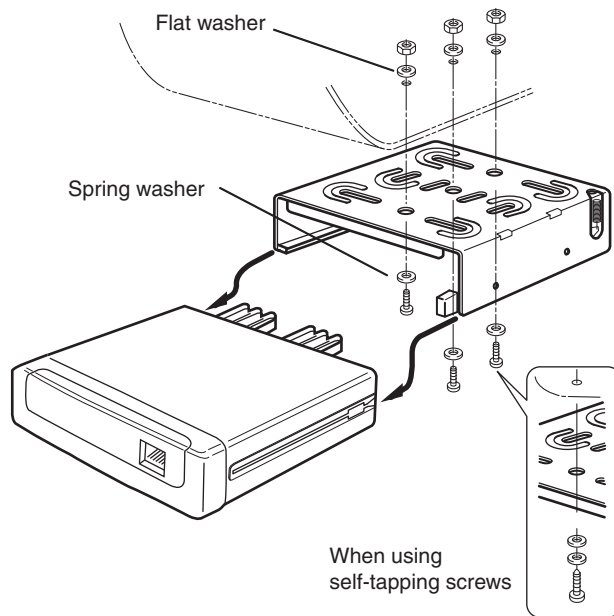


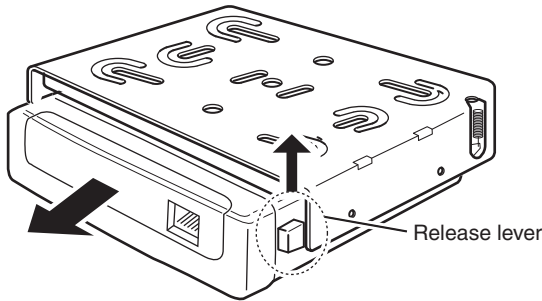
<Sample 2: IC-440 is installed under a dash box, etc.>



◇ Using the mounting bracket

- ① Drill 3 holes where the mounting bracket is to be installed.
 - Approx. 5.5–6 mm ($\frac{1}{4}$ ") when using nuts; approx. 2–3 mm ($\frac{1}{8}$ ") when using self-tapping screws.
- ② Insert the supplied screws, nuts and washers through the mounting bracket and tighten.
- ③ Insert the mounting bracket's rail to the transceiver's slot, then slide the transceiver to attach with the mounting bracket.



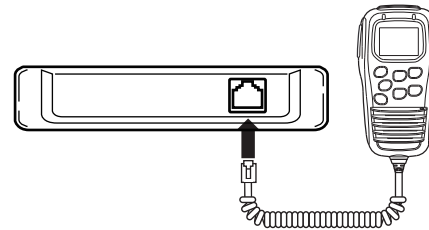


NOTE

- When detaching the transceiver from the mounting bracket, push up and hold the release lever, then pull the transceiver in the direction of the arrow.
- The mounting bracket can be attached even if upside down. When detaching the transceiver from the bracket in this case, push down and hold the release lever, then pull the transceiver to the front.

◇ Microphone connection

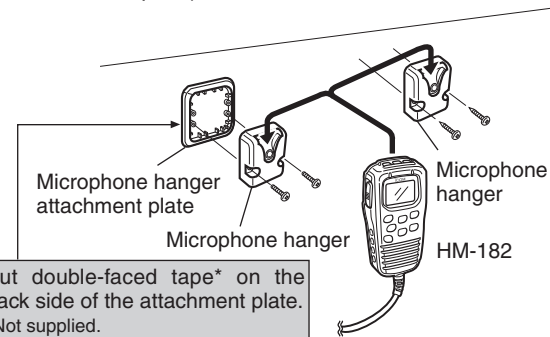
Connect the supplied microphone as illustrated below.



CONVENIENT! The supplied OPC-647 MICROPHONE CABLE is available to extend the microphone cable.

◇ Microphone hanger attachment

Attach the supplied microphone hanger (with the microphone hanger attachment plate) as illustrated below.



1 ACCESSORIES AND CONNECTION

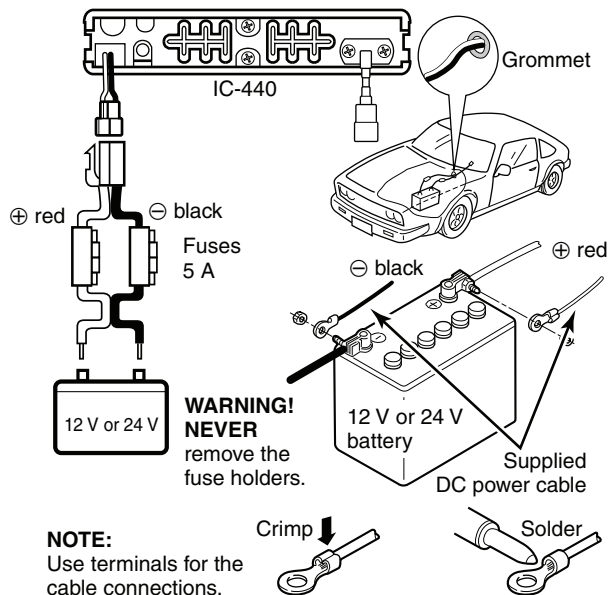
◇ Battery connection

⚠ **WARNING NEVER** remove the fuse holders from the DC power cable.

DO NOT use the cigarette lighter socket for power connection. (See p. 6 for details)

Attach a rubber grommet when passing the DC power cable through a metal plate to prevent a short circuit.

• Connecting to a DC power source



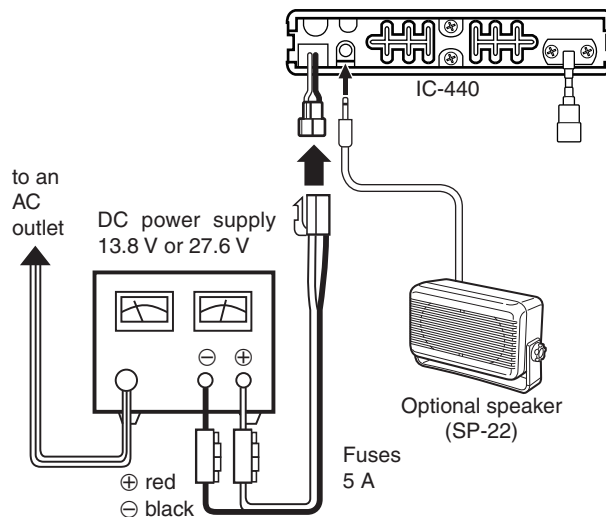
◇ DC power supply connection

⚠ **WARNING NEVER** remove the fuse holders from the DC power cable.

Use a 13.8 V or 27.6 V DC power supply with at least 3 A capacity.

Make sure the ground terminal of the DC power supply is grounded.

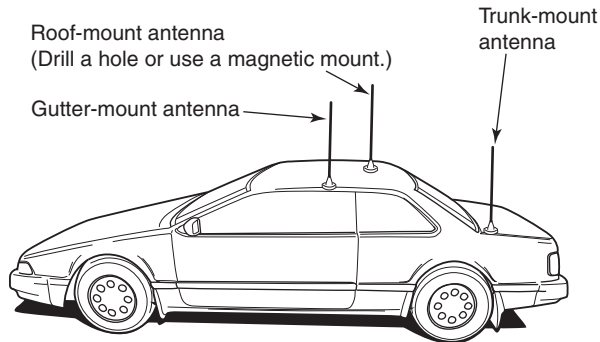
• Connecting to a DC power supply



◇ Antenna installation

• Antenna location

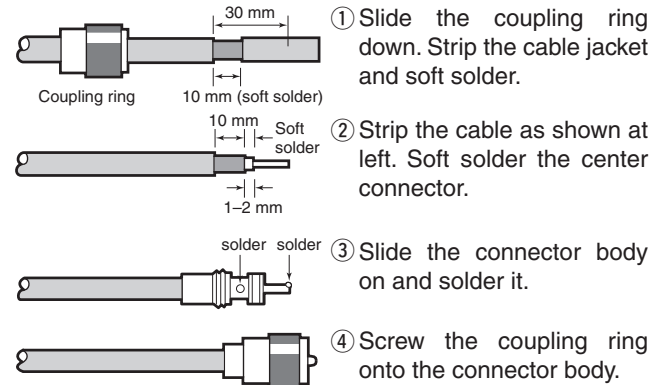
To obtain maximum performance from the transceiver, select a high-quality antenna and mount it in a good location. A non-radial antenna should be used when using a magnetic mount.



• Antenna connector

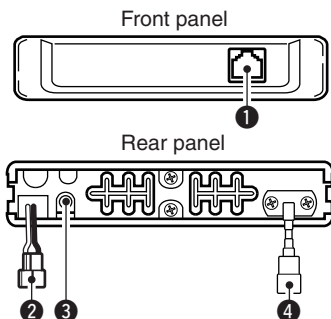
The antenna uses a PL-259 connector.

• PL-259 CONNECTOR



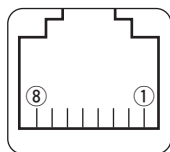
NOTE: There are many publications covering proper antennas and their installation. Check with your local dealer for more information and recommendations.

■ IC-440 front and rear panels



① MICROPHONE CONNECTOR

Connects the supplied microphone or cloning cable (OPC-1122U).



Front panel view

- ① DC output (same voltage as connected battery or DC power supply)
- ② TX line
- ③ GND
- ④ PTT
- ⑤ GND (microphone ground)
- ⑥ AF line
- ⑦ POWER
- ⑧ RX line

② POWER RECEPTACLE

Accepts 13.8 V or 27.6 V DC with the supplied DC power cable.

NOTE: DO NOT use a cigarette lighter socket as a power source when operating in a vehicle. The plug may cause voltage drops and ignition noise may be superimposed onto transmit or receive audio.

③ EXTERNAL SPEAKER JACK [SP]

Connects a 4 Ω speaker. (p. 4)

- Audio output power is more than 5.0 W.

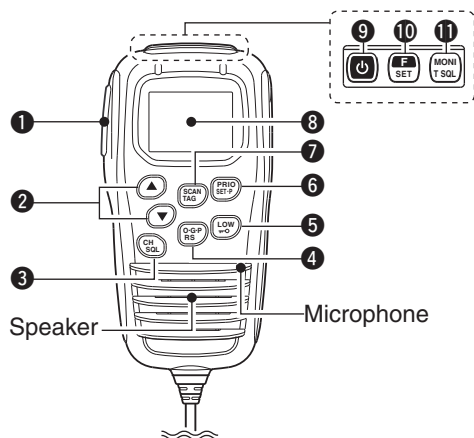
④ ANTENNA CONNECTOR

Connects a 50 Ω antenna with a PL-259 connector and a 50 Ω coaxial cable.

ANTENNA INFORMATION

For radio communications, the antenna is of critical importance, to maximize your output power and receiver sensitivity. The transceiver accepts a 50 Ω antenna and less than 1:1.5 of Voltage Standing Wave Ratio (VSWR). High SWR values not only may damage the transceiver but also lead to TVI or BCI problems.

■ HM-182 front and top panels



Information: Up to four desired functions, one each for Normal and Function mode, can be re-assigned to **[F SET]**, **[MONI T SOL]**, **[SCAN TAG]**, **[O-G-P RS]**, **[PRIO SET-P]**, **[CH SOL]** and **[LOW W-O]** keys with the optional CS-440 CLONING SOFTWARE. (p. 12)

The default setting is used in this instruction manual, for description.

[N] : Stands for Normal mode operation.

[F] : Stands for Function mode operation. (Push **[F SET]** (Function) to enter Function mode.)

① PTT SWITCH [PTT] (p. 16)

Push and hold to transmit; release to receive.

② VOLUME CONTROL/CH UP/CH DOWN KEYS ([VOL])



Push to adjust the audio level, to select an operating channel, set mode setting, etc. (pgs. 14, 19, 40)
[Volume adjust/set mode setting]

➡ Push to adjust the audio level (from 0 to 32).

- “**[X]**” appears when the audio level is set to 0 (while muted).

➡ Push to select the set mode setting in the set mode.
[Channel selection]

Push **[CH SOL]**, then push to select the operating channel.
(p. 14)

- “**[CH+]**” appears when channel selection mode is selected.

③ VOLUME/CHANNEL/SQUELCH SELECT KEY **[CH SOL]** (Volume/Channel/Squelch select mode) (pgs. 14, 18)

➡ Push to toggle between volume and channel selection mode.

- “**[CH+]**” appears when channel selection mode is selected.
- If no key is pushed within 30 sec., channel selection mode is cancelled.

(Squelch level select mode)

➡ Push and hold for 2 sec. to enter the squelch level setting mode, then push **[▲]** or **[▼]** to set the squelch level. (p. 18)

Count on us!

THE ICOM UHF CB TRANSCEIVER LINE UP.

The follow transceivers can also communicate with IC-440.
Ask your Icom (Australia) authorized dealer or see Icom home page
(<http://www.icom.net.au/>) for details.



IC-41S
(Handheld type)



IC-400PRO
(Mobile type)

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